

CHAPTER 3

BLOODBORNE PATHOGENS EXPOSURE CONTROL PROGRAM

BLOODBORNE PATHOGENS - EXPOSURE CONTROL PLAN

I. PURPOSE

To provide guidelines for a comprehensive exposure control plan to eliminate or minimize employee's exposure and infection to bloodborne pathogens. It is the goal of Shasta County to protect employees from occupational exposure to bloodborne pathogens through the following Exposure Control Plan ("The Plan").

The Plan shall be readily accessible at orientation and in each department. Employees may also request a copy from their Department Head or designees. The Plan shall be reviewed by the Advisory Committee and updated as required by legislative or administrative change.

II. DEFINITIONS

"Blood," means human blood, human blood components, and products made from human blood.

"Bloodborne Pathogens" means pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV), hepatitis C virus (HCV) and human immunodeficiency virus (HIV).

"Contaminated" means the presence or the reasonably anticipated presence of blood or OPIM on a surface or in or on an item.

"Contaminated Laundry" means laundry which has been soiled with blood or OPIM or may contain sharps.

"Contaminated Sharps" means any contaminated object that can penetrate the skin including, but not limited to, needles, scalpels, broken glass, broken capillary tubes, and exposed ends of dental wires.

"Decontamination" means the use of physical or chemical means to remove, inactivate, or destroy bloodborne pathogens on a surface or item to the point where they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use, or disposal.

"Engineering Controls" means controls (e.g., sharps disposal containers, self-sheathing needles, safer medical devices, such as sharps with engineered sharps injury protections and needleless systems) that isolate or remove the bloodborne pathogens hazard from the workplace.

"Exposure Incident" means a specific eye, mouth, other mucous membrane, non-intact skin, or contact with blood or other potentially infectious material that result from the performance of an employee's duties.

“Hand washing Facilities” means a facility providing an adequate supply of running potable water, soap, and single use towels or hot air drying machines.

“HBV” means hepatitis B virus.

“HCV” means hepatitis C virus.

“HIV” means human immunodeficiency virus.

“Needless System” means a device that does not use a needle for collection of bodily fluids or the withdrawal of body fluids after initial venous or arterial access is established, the administration of medications or fluids, or any other procedure involving the potential for occupational exposure to bloodborne pathogens due to percutaneous injuries from contaminated sharps.

“Occupational Exposure” means reasonably anticipated skin, eye mucous membrane or parenteral contact with blood or OPIM that may result from the performance of an employee’s duties. (See the Job Classification Schedule, Appendix A of the Shasta County IIPP.)

“OMSP” means the Occupational Medical Services Provider which has been chosen by Support Services to provide vaccination and education services.

“OPIM” means Other Potentially Infectious Materials, such as:

- a) The following human body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, or other body fluid that is visibly contaminated with blood, such as saliva or vomitus, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids such as emergency response;
- b) Any unfixed tissue or organ (other than intact skin) from a human (living or dead); and
- c) HIV-containing cell or tissue cultures, organ cultures, and HIV- or HBV or HCV-containing culture medium or other solutions; and blood, organs, or other tissues from experimental animals infected with HIV, HBV, or HCV.

“Parenteral” means piercing mucous membranes or the skin barrier through such events as needle sticks, human bites, cuts, and abrasions.

“Personal Protective Equipment” means specialized clothing or equipment worn or used by an employee for protection against a hazard.

“Regulated Waste” means liquid or semi-liquid or OPIM; contaminated items that would release blood or OPIM in a liquid or semi-liquid state if compressed; items that are caked with dried blood or OPIM and are capable of releasing these materials during handling; contaminated sharps; and pathological and microbiological wastes containing blood or OPIM. Regulated Waste includes “medical waste” regulated by Health and Safety Code Chapter 6.1.

“Sharps with Engineered Sharps Injury Protections (SESIP)” means a non-needle sharp or a needle device used for withdrawing body fluids, accessing a vein or artery, or administering medications or other fluids, with a built-in safety feature or mechanism that effectively reduces the risk of an exposure incident.

“Source Individual” means any individual, living or dead, whose blood or OPIM may be a source of occupational exposure to the employee.

“Sterilize” means the use of a physical or chemical procedure to destroy all microbial life including highly resistant bacterial endospores.

“Universal Precautions” means an approach to infection control. According to the concept of Universal Precautions, all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV, HCV and other bloodborne pathogens.

“Work Practice Controls” means controls that reduce the likelihood of exposure by altering the manner in which a task is performed (e.g., prohibiting recapping of needles by a one-handed technique, repositioning if splashes are anticipated, etc.).

III. EXPOSURE CONTROL PLAN

1. **Exposure Determination** - An exposure determination is performed identifying which employees may incur occupational exposure to blood or OPIM. This exposure determination is made without regard to the use of personal protective equipment. Job Classifications are listed by category at the end of this document.

Category A - Job classifications in which ALL employees may be expected to incur occupational exposure, regardless of frequency.

Category B - Job classifications in which SOME employees may have occupational exposure. Since not all the employees in these categories would be expected to incur exposure to blood or OPIM, tasks, or procedures that would cause these employees to have occupational exposure are listed by department in order to clarify the employees and tasks.

Category C - Job classifications in which NONE of the employees have occupational exposure.

2. **Methods of Compliance**

Universal Precautions will be observed in order to prevent contact with blood or OPIM. All blood or other potentially infectious material will be considered infectious regardless of the perceived status of the source individual.

- A. **Departmental Responsibility** - Department Head or designees will ensure that employees:

- a. Utilize the appropriate engineering and work practice controls;
 - b. Are provided adequate training in the use and location of personal protective equipment prior to starting work; and
 - c. Are provided training when changes such as modifications of tasks or procedures or institution of new tasks or procedures affect the employee's occupation exposure.
- B. Engineering and work practice controls will be utilized to eliminate or minimize exposure to employees. Where occupational exposure remains after institution of these controls, personal protective equipment shall also be utilized. These controls will be examined and maintained or replaced on a regular schedule by each department to ensure their effectiveness.
- a. Hand Washing Facilities shall be readily available and accessible after incurring exposure.
 - i. After removal of personal protective gloves, employees shall wash hands and any other potentially contaminated skin area immediately or as soon as feasible with soap and water.
 - ii. If employees incur exposure to their skin or mucous membranes, then those areas shall be washed or flushed with water as appropriate as soon as feasible following contact.
 - iii. If hand washing is not feasible, an appropriate alternative (e.g., towelette) is provided.
 - b. Needles and Sharps
 - i. Contaminated needles and other contaminated sharps will not be bent, recapped, removed, sheared, or purposely broken unless Shasta County can demonstrate that no alternative is feasible. If such action is required, then the recapping or removal of the needle must be done by the use of a mechanical device or a one-handed technique.
 - ii. Needleless systems or sharps with engineered sharps injury protections shall be utilized whenever feasible.
 - iii. Annually, Safety Coordinators will review the exposure control plan and update the information to reflect new or modified tasks and procedures, which affect occupational exposure and to reflect new or revised employee positions with occupational exposure.
 - iv. Annually, Safety Coordinators from departments that use sharps devices in job functions will review, identify, evaluate and select commercially available and effective safer medical devices designed to eliminate or minimize occupational exposure.
 - v. The annual review will include non-managerial employees responsible for direct patient care with potential exposure to injuries from contaminated sharps.

- vi. The annual meeting will be documented, including any recommended device changes with completed evaluations.
 - vii. Safety Coordinators will ensure that device and technology recommendations are implemented where feasible.
 - viii. Staff using any new technology or devices will be trained on appropriate use and safety considerations prior to implementation.
- c. Containers for Reusable Sharps that are reusable are to be placed immediately, or as soon as possible, after use into appropriate sharps containers. Soiled, reusable sharps are not processed in a manner which requires employees to reach by hand into containers. Sharps containers are puncture resistant, leak proof, and labeled with a biohazard label.
- d. Work Area Restrictions
- i. Eating, drinking, applying cosmetics or lip balm, smoking, or handling contact lenses is restricted in work areas where there is a reasonable likelihood of exposure to blood or OPIM. Food and beverages are not to be kept in refrigerators, freezers, shelves, cabinets, or on counter tops or bench tops where blood or OPIM are present.
 - ii. Mouth pipetting/suctioning of blood or OPIM is prohibited.
 - iii. All procedures will be conducted in a manner which will minimize splashing, spraying, splattering, and generation of droplets of blood or OPIM. Methods include placing self away from potential trajectory of fluids, covers on centrifuges, pouring fluids in a manner which will prevent splashing, etc.
- e. Specimens
- i. Specimens (of blood or OPIM) are considered infectious and will be placed in a container which prevents leakage during the collection, handling, processing, storage, and transport of the specimens.
 - ii. Any specimens which could puncture a primary container will be placed within a secondary container which is puncture resistant.
 - iii. If outside contamination of the primary container occurs, the primary container shall be changed to a clean one. If this is impossible, it can be placed within a secondary container which prevents leakage during the handling, processing, storage, transport, or shipping of the specimen.
- f. Contaminated Equipment - Equipment which has become contaminated with blood or OPIM shall be examined prior to servicing or shipping and shall be decontaminated as necessary unless the decontamination of the equipment is not feasible.

- g. Housekeeping
 - i. The work area is cleaned and decontaminated according to schedules defined by specific departments.
 - ii. All contaminated work surfaces are decontaminated after completion of procedures and immediately or as soon as feasible after any spill of blood or OPIM, as well as the end of the work shift if the surface may have become contaminated since the last cleaning. These specifications are defined by each specific department.
 - iii. All bins, pails, cans, and similar receptacles are inspected and decontaminated on a regularly scheduled basis.
 - iv. Any broken glassware which may be contaminated will not be picked up directly with the hands. It shall be cleaned using mechanical means.

- h. Regulated Waste Disposal
 - i. Sharps are discarded immediately in containers that are closable, puncture resistant, leak proof on sides and bottom, and appropriately labeled.
 - ii. Sharps containers are easily accessible and located as close as possible to the work area, maintained upright, and replaced routinely and not allowed to overfill.
 - iii. Other regulated medical waste, in general, includes: liquid blood elements or articles containing liquid blood, laboratory waste, and microbiological specimens. These are placed in red bio-hazard bags prior to disposal. (See Departmental Medical Waste Disposal policies.)

- i. Laundry Procedures
 - i. Laundry contaminated with blood or OPIM will be handled as little as possible. Laundry is placed in gray leak-proof bags at the location where it was used. Laundry is not sorted or rinsed in the area of use.
 - ii. All employees who handle contaminated laundry utilize personal protective equipment to prevent contact with blood or OPIM.

- j. Labels and Signs
 - i. Hazard warning labels are affixed to the containers of regulated waste, refrigerators and freezers containing blood, or OPIM or equipment sent out for repair, which cannot be decontaminated.
 - ii. Red bags or red containers may be substituted for labels except for sharps containers or regulated waste red bags.

- iii. Regulated waste that has been decontaminated need not be labeled or color-coded.

3. Personal Protective Equipment

- A. All personal protective equipment will be provided without cost to employees. Personal protective equipment will be chosen based on the anticipated exposure to blood or OPIM. The protective equipment will be considered appropriate only if it does not permit blood or OPIM to pass through or reach the employees' clothing, skin, eyes, mouth, or other mucous membranes under normal conditions of use and for the duration of time which the protective equipment will be used.
- B. The Department Head or designees ensures that the employee uses appropriate personal protective equipment unless Shasta County shows that the employee temporarily and briefly declined to use personal protective equipment when, under rare and extraordinary circumstances, it was the employee's professional judgment that in the specific instance its use would have prevented the delivery of health care or public safety services or would have posed an increased hazard to the safety of the worker or co-worker. When the employee makes this judgment, the circumstances shall be investigated and documented in order to determine whether changes can be instituted to prevent such occurrences in the future. Shasta County shall encourage employees to report all such instances without fear of reprisal.
- C. Accessibility. Shasta County shall ensure that appropriate personal protective equipment in the appropriate sizes is readily accessible at the worksite or is issued to employees. Hypoallergenic gloves, glove liners, powderless gloves, or other similar alternatives shall be readily accessible to those employees who are allergic to the gloves normally provided. Employees who have allergy or sensitivity will be evaluated at the OMSP and appropriate personal protective equipment prescribed.
- D. All personal protective equipment will be cleaned, laundered, and disposed of by Shasta County at no cost to employees. All repairs and replacements will be made by Shasta County at no cost to employees.
- E. All garments which are penetrated by blood shall be removed immediately or as soon as feasible. All personal protective equipment will be removed and placed in an appropriate container prior to leaving the work area.
- F. Gloves shall be worn where it is reasonably anticipated that employees will have hand contact with blood, OPIM on surfaces, non-intact skin, and mucous membranes when performing vascular access procedures.

- G. Disposable gloves are not to be washed or decontaminated for re-use and are to be replaced as soon as practical when they become contaminated or as soon as feasible if they are torn, punctured, or when their ability to function as a barrier is compromised. Disposable gloves shall not be washed or decontaminated for re-use. Utility gloves may be decontaminated for re-use provided that the integrity of the glove is not compromised. Utility gloves will be discarded if they are cracked, peeling, torn, punctured, or exhibit other signs of deterioration or when their ability to function as a barrier is compromised.
- H. Masks, in combination with eye protection devices such as goggles or glasses with solid-side shields or chin-length face shields, are required to be worn whenever splashes, spray, splatter, or droplets of blood or OPIM may be generated and eye, nose, or mouth contamination can reasonably be anticipated.
- I. Appropriate protective clothing, including lab coats, gowns, aprons, clinic jackets, or similar outer garments are used if exposure is anticipated. The specifications are defined by each specific department and task performed.

4. **Hepatitis B Vaccine**

- A. All employees who have been identified as having occupational exposure to blood or OPIM will be offered the Hepatitis B vaccine at no cost to the employee. The vaccine will be offered within ten (10) working days of their initial assignment to work involving the potential for occupational exposure to blood or OPIM unless the employee has previously had the vaccine or wishes to submit to antibody testing which shows the employee to have sufficient immunity.
- B. New Category A employees will be offered the vaccine at the Occupational Medical Services Provider (“OSMP”) at the time of hire.
- C. New Category B Employees - The department will note “exposure to blood and/or body fluids” on the Physical Demand Record and forward to the OSMP.
- D. Current Employees will be offered vaccine which will be scheduled within the department.
- E. Departments are responsible for tracking employee compliance by:
 - a. Having employee sign vaccine participation or declination form; and
 - b. Providing written information and training on the vaccine.
- F. Employees who decline the Hepatitis B vaccine will sign the waiver, Vaccine Declination form.”

- G. Employees who initially decline the vaccine but who later wish to have it may then have the vaccine provided at no cost.

IV. POST-EXPOSURE EVALUATION AND FOLLOW-UP

1. When any employee, regardless of A, B, or C Category, incurs an exposure incident, it shall be reported to their supervisor as soon as possible and in any event, before the end of the work shift and the employee shall report to the OMSP or the Emergency Room within 24 hours.
2. All employees who incur an exposure incident will be offered post-exposure evaluation and follow-up including the Hepatitis B vaccine, if necessary, in accordance with the OSHA standard and County of Shasta policy. This follow-up includes the following:
 - A. Documentation of the route of exposure and the circumstances related to the incident are reported via the Employer's Report of Occupational Injury or Illness (OSHA Form 5020) and reviewed by the departmental and County Safety Committees.
 - B. If possible, the identification and status of the source patient. The blood of the source-patient will be tested (after consent is obtained) for HIV/HBV/HCV infectivity.
 - C. Results of testing of the source-patient will be made available to the exposed employee who will be informed about the applicable laws and regulations concerning disclosure of the identity and infectivity of the source individual. If source patient's HIV/HBV/HCV status is already known, tests need not be repeated.
 - D. The employee will be offered the option of having their blood collected for testing for HIV/HBV/HCV. If the employee chooses to defer testing, he/she can have the blood sample preserved for up to 90 days to decide if the blood should be tested for HIV serological status. If within the 90 days, the employee decides to be treated, appropriate action can be taken and the blood sample discarded.
 - E. The employee will be offered post-exposure prophylaxis in accordance with the current recommendations of the U.S. Public Health Service. Please see the Centers for Disease Control and Prevention at www.cdc.gov for details.
 - F. The employee will be given appropriate counseling by their medical provider concerning precautions to take during the period after the exposure incident. The employee will also be given information on what potential illnesses to be alert for and to report any related experiences to appropriate personnel.

3. A written opinion shall be obtained within 15 days from the health care professional who evaluates employees.
 - A. Written opinions will be given in the following instances:
 - a. When the employee is sent to obtain the Hepatitis B vaccine; and
 - b. Whenever the employee is sent to the OMSP following an exposure.
 - B. The written opinion shall be limited to:
 - a. Whether the Hepatitis B vaccine is indicated;
 - b. That the employee has been informed of the results of the evaluation; and
 - c. That the employee has been told about any medical conditions resulting from exposure to blood or OPIM, which require further evaluation or treatment.

V. TRAINING

1. Training for all employees will be conducted by a knowledgeable instructor prior to initial assignment to tasks where occupational exposure may occur. Training can be conducted at general orientation or by the individual department manager.
2. All employees will receive annual refresher training within one year of the employee's previous training.
3. Additional training will be offered where there are changes in procedures, which affect occupational exposures. This may be limited to addressing the new exposures created.
4. Training for employees having occupational exposure (Category A & B) will include the following explanation of:
 - A. An accessible copy of the Cal-OSHA Title 8 California Code of Regulations, General Industry Safety Orders Section 5193 regulatory text of this standard and its contents.
 - B. A general explanation of the epidemiology and symptoms of bloodborne diseases;
 - C. An explanation of the modes of transmission of bloodborne pathogens;
 - D. An explanation of Shasta County's exposure control plan and the means by which the employee can obtain a copy of the written plan;
 - E. An explanation of the appropriate methods for recognizing the tasks and other activities that may involve exposure to blood and OPIM;

- F. An explanation of the use and limitations of methods that will prevent or reduce exposure, including appropriate engineering controls, work practices, and personal protective equipment;
 - G. Information on the types, proper use, location, removal, handling, decontamination and disposal of personal protective equipment;
 - H. An explanation of the basis for selection of personal protective equipment;
 - I. Information on the Hepatitis B vaccine, including information on its efficacy, safety, method of administration, the benefits of being vaccinated, and that the vaccine and vaccination will be offered free of charge;
 - J. Information on the appropriate actions to take and persons to contact in an emergency involving blood or OPIM;
 - K. An explanation of the procedure to follow if an exposure incident occurs, including the method of reporting the incident and the medical follow-up that will be made available;
 - L. Information on the post-exposure evaluation and follow-up that Shasta County is required to provide for the employee following an exposure incident;
 - M. An explanation of the signs and labels and/or color coding system; and
 - N. An opportunity for interactive questions and answers with the person conducting the training session.
5. Training for all other employees (Category C) will include:
- A. Information on the appropriate actions to take and persons to contact in an emergency involving blood or OPIM;
 - B. An explanation of the procedure to follow if an exposure incident occurs, including the method of reporting the incident and the medical follow-up that will be made available; and
 - C. Information on the post-exposure evaluation and follow-up that Shasta County is required to provide for the employee following an exposure incident.
6. Training Records are maintained by each individual department for three (3) years and shall include the following information:

- A. The dates of the training session;
- B. The contents or a summary of the training sessions; and
- C. The names and qualifications of persons conducting the training.

VI. RECORDKEEPING OF MEDICAL RECORDS

1. Medical records are maintained with the OMSP and contain the following:
 - A. Name and social security number of the employee;
 - B. A copy of the employee’s hepatitis B vaccination status, including the dates of all the hepatitis B vaccinations and any medical records relative to the employee’s ability to receive vaccination;
 - C. A copy of all results of examinations, medical testing, and follow-up procedures;
 - D. Shasta County’s copy of the health care professional’s written opinion; and
 - E. A copy of the information provided to the health care professional.
2. Confidentiality - Shasta County shall ensure that employee medical records are:
 - A. Kept confidential; and
 - B. Not disclosed or reported without the employee’s express written consent to any person within or outside the workplace except as required by this section or as may be required by law.
3. Shasta County shall maintain the records for at least the duration of employment plus 30 years.

VII. EXPOSURE PROTOCOL

1. Reporting Procedure (Post-Exposure Incident)

- A. If possible, notify the supervisor immediately after exposure. In all cases, be sure to notify your supervisor or manager before the end of your work shift.
- B. Supervisor provide the employee with Employee’s Claim for Workers’ Compensation Benefits (DWC-1) with the date in Line 11 completed, as well as fill out the Employer’s Report of Occupational Injury or Illness (OSHA Form 5020).

- C. Follow required workers' compensation procedures (Chapter 10 of the Injury/Illness Prevention Plan).
- D. If you believe you have been exposed, please follow the treatment procedures outlined below.

2. **Treatment Procedure (Post-Exposure Incident)**

- A. All exposures should be washed immediately with soap and water.
- B. Identify the source of the exposure, e.g., person, needle, etc.
- C. If there is a question determining if an exposure has occurred, the supervisor or employee may consult with the OMSP.
- D. If you have been exposed (see exposure definition), you must report to the OMSP or the Emergency Room within 24 hours for post-exposure evaluation and necessary medical treatment.
- E. Costs for necessary post-exposure treatment will be borne by Shasta County.



Hepatitis B Vaccination
(New Hires/Employees that will or may have Occupational Exposure)

The OSHA/Cal OSHA standard covering bloodborne pathogens requires employers to offer the Hepatitis B vaccination free of charge to all employees that will (Category A), or may have, (Category B), exposure to blood or other potentially infectious materials as part of their job duties. (Exception: Designated first aid providers who have occupational exposure are not required to be offered pre-exposure hepatitis B vaccine if the following conditions exist: Any first aid rendered by such persons is rendered only as a collateral duty responding solely to injuries resulting from workplace incidents, generally at the location where the incident occurred. This exception does not apply to designated first aid providers who render assistance on a regular basis, for example, at a first aid station, clinic, dispensary, or other location where injured employees routinely go for such assistance, and emergency or public safety personnel who are expected to render first aid in the course of their work.).

The vaccine series consists of three shots in the arm given over a six-month period. The vaccine does not contain a live virus, so no one can catch hepatitis from the vaccination. The vaccine is very safe and effective and is prepared from recombinant yeast cultures rather than human blood. Over 2 million health care workers have already been vaccinated. More than 90 percent of the people who receive the vaccine develop immunity. A blood test can show whether a person has become immune. Those who show immunity in the blood test are 100 percent protected against HBV infection for several years.

An employee that is offered the pre-exposure Hepatitis B vaccination, and does not want to receive the vaccine must sign a form declining the vaccine. Someone who initially declines vaccination may choose to receive it at a later date if still working for the County in a job with exposure to infectious materials.

The following employee has potential occupational exposure to blood or other infectious materials.

Name of Employee

Classification Title

Circle Exposure Category: A B

Disposition:

- _____ Vaccine Series started.
- _____ Vaccine declined. Declination form signed.
- _____ Employee previously received complete vaccine series.
- _____ Antibody testing has revealed that the employee has immunity against Hepatitis B.
- _____ Vaccine is contraindicated for medical reasons.
- _____ Vaccine series complete.

Signature of Health Care Professional

Date



Vaccination Declination Statement: Hepatitis B

I understand that due to my occupational exposure to blood or other potentially infectious material (OPIM) I may be at risk of acquiring hepatitis B virus (HBV) infection. I have been given the opportunity to be vaccinated with hepatitis B vaccine, at no charge to myself. However, I decline hepatitis B vaccination at this time. I understand that by declining this vaccine, I continue to be at risk of acquiring hepatitis B, a serious disease. If in the future, I continue to have occupational exposure to blood or OPIM and I want to be vaccinated with hepatitis B vaccine, I can receive the vaccination series at no charge to me.

Name (Please Print): _____

Employee ID or Last 4 of SSN: _____

Employee Signature: _____

Date: _____

